

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 15, 28 and 39 and ADD new claims 45-50 in accordance with the following:

1-14. (canceled)

15. (currently amended) A ruled line extracting apparatus, comprising:

a straight line extracting means for unit extracting information of one or more straight line patterns from an input image; and

a straight line deleting means for unit determining whether or not to delete one among the one or more straight line patterns by using ~~at least one of~~ information about a shape ratio between a height and a width of the one among the one or more straight line patterns, and information about a distance between two straight line patterns included in the one or more straight line patterns.

16-27. (canceled)

28. (currently amended) A computer-readable storage medium, when used by a computer, to direct the computer to perform the functions of:

extracting information of one or more straight line patterns from an input image; and

determining whether or not to delete one among the one or more straight line patterns, using at least either of information about a shape ratio between a height and a width of the one among the one or more straight line patterns, and information about a distance between two straight line patterns included in the one or more straight line patterns.

29-38. (canceled)

39. (currently amended) A ruled line extracting method, comprising the steps of:

extracting information of one or more straight line patterns from an input image; and

determining whether or not to delete one among the one or more straight line patterns, using at least either of information about a shape ratio between a height and a width of the one

CI
CD
among the one or more straight line patterns, and information about a distance between two straight line patterns included in the one or more straight line patterns.

40-44. (canceled)

45 (new) A ruled line extracting apparatus, comprising:

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a straight line extracting unit extracting information of one or more straight line patterns from an input image; and

a straight line deleting unit deleting a first straight line pattern among the one or more straight line patterns when the first straight line pattern is adjacent to a second straight line pattern among the one or more straight line patterns and a length of the first straight line pattern is less than a threshold value.

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46. (new) A ruled line extracting process, comprising:

extracting information of one or more straight line patterns from an input image; and

deleting a first straight line pattern among the one or more straight line patterns when the first straight line pattern is adjacent to a second straight line pattern among the one or more straight line patterns and a length of the first straight line pattern is less than a threshold value.

47. (new) A computer-readable storage medium, when used by a computer, to direct the computer to perform the functions of:

extracting information of one or more straight line patterns from an input image; and

deleting a first straight line pattern among the one or more straight line patterns when the first straight line pattern is adjacent to a second straight line pattern among the one or more straight line patterns and a length of the first straight line pattern is less than a threshold value.

48. (new) A ruled line extracting apparatus, comprising:

a straight line extracting unit extracting information of one or more straight line patterns from an input image; and

a straight line deleting unit deleting a first straight line pattern among the one or more straight line patterns when the first straight line pattern is adjacent to a second straight line

pattern among the one or more straight line patterns and a distance between the first and second straight line patterns is less than a threshold value.

49. (new) A ruled line extracting apparatus, comprising:

extracting information of one or more straight line patterns from an input image; and

deleting a first straight line pattern among the one or more straight line patterns when the first straight line pattern is adjacent to a second straight line pattern among the one or more straight line patterns and a distance between the first and second straight line patterns is less than a threshold value.

50. (new) A computer-readable storage medium, when used by a computer, to direct the computer to perform the functions of:

extracting information of one or more straight line patterns from an input image; and

deleting a first straight line pattern among the one or more straight line patterns when the first straight line pattern is adjacent to a second straight line pattern among the one or more straight line patterns and a distance between the first and second straight line patterns is less than a threshold value.